What is claimed is:

1. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays capable of being selectively located at said paper outlet and including at least an upper tray and a lower tray movable up and down independently of each other

control means for selectively locating either one of said upper tray and said lower tray at said paper outlet, said control means moving said lower tray to a retracted position when locating said upper tray at said paper outlet; and

stand-by position sensing means for sensing a stand-by position of said lower tray which is a home position defined between said paper outlet and said retracted position.

2. A finisher as claimed in claim 1, wherein said stand-by position sensing means bifunctions as full sensing means responsive to a full state of said lower tray.

3. A finisher as claimed in claim 2, wherein said stand-by position sensing means is positioned above said retracted position by a distance corresponding to a number of papers which can be stacked on said upper tray.

4. A finisher as claimed in claim 1, wherein said retracted position is a position which said lower tray reaches when lowered by a preselected amount after being sensed by said stand-by position sensing means.

5. A finisher as claimed in claim 1, furth r comprising

discharge position sensing means for locating a designated one of said upper tray and said lower tray at said paper outlet, said discharge position sensing means sensing the designated tray on a surface which trailing edges of papers stacked on said designated tray contact.

6. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays capable of being selectively located at said paper outlet and including at least an upper tray and a lower tray movable up and down independently of each other

control means for locating a designated one of said upper tray and said lower tray at said paper outlet, said control means moving said lower tray to a retracted position when locating said upper tray at said paper outlet;

stand-by position sensing means for sensing a stand-by position of said lower tray which is a home position defined between said paper outlet and said retracted position, and a top of the papers stacked on said lower tray; and

retracted position sensing means responsive to said retracted position.

7. A finisher as claimed in claim 6, wherein said retracted position sensing means is positioned in a range over which papers of maximum size capable of being stacked on said lower tray move.

8. A finisher as claimed in claim 6, wherein if said retracted position sensing means and said stand-by position sensing means both turn on when said lower tray is lowered, said control means inhibits

a downward movement of said upper tray.

9. A finisher as claimed in claim 6, wherein when said stand-by position sensing means turns on and then turns off, said control means raises said lower tray, determining that the papers have been removed from said lower tray.

10. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays capable of being selectively located at said paper outlet and including at least an upper tray and a lower tray movable up and down independently of each other; and

control means for locating a designated one of said upper tray and said lower tray at said paper outlet;

wherein a retracted position assigned to said upper tray is defined above said paper outlet while a retracted position assigned to said lower tray is defined below said paper outlet, wherein a stand-by position which is a home position assigned to said lower tray is defined between said retracted position of said lower tray and said paper outlet, and wherein a home position assigned to said upper tray is coincident with a paper discharge position corresponding to said paper outlet.

11. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays capable of being selectively located at said paper outlet and including at least an upper tray and a lower tray movable up and down independently of each other; and

control means for locating a designated one of said upper tray and a lower tray at said paper outlet;

wherein a retracted position assigned to said upper tray is defined above said paper outlet while a retracted position assigned to said lower tray is defined below said paper outlet, wherein a stand-by position which is a home position assigned to said lower tray is defined between said retracted position of said lower tray and said paper outlet, and wherein a home position assigned to said upper tray is coincident with said retracted position of said upper tray.

12. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays capable of being selectively located at said paper outlet and including at least an upper tray and a lower tray movable up and down independently of each other; and

control means for locating a designated one of said upper tray and said lower tray at said paper outlet;

wherein a retracted position assigned to said upper tray is defined above said paper outlet, and wherein said upper tray is movable via said paper outlet and includes an end fence movable up and down in synchronism with a stacking surface of said upper tray for positioning edges of the papers.

13. A finisher as claimed in claim 12, wherein said upper tray moves away from said outlet in a direction of paper discharg when moving past said paper outlet.

14. A finisher as claimed in claim 12, further comprising a

discharge position sensor for locating either one of said upper tray and said lower tray at said paper outlet, said lower tray being movable to a retracted position defined below a paper discharge position defined by said discharge position sensor by a first preselected distance.

15. A finisher as claimed in claim 14, wherein said first preselected position allows said upper tray to move to said paper discharge position and allows the papers to be removed from said lower tray.

16. A finisher as claimed in claim 15, further comprising a lower limit position sensor responsive to a lower limit position of said lower tray and located to allow said lower tray having been sensed by said lower limit position sensor to move downward by a second preselected distance.

17. A finisher as claimed in claim 16, wherein said second preselected distance is greater than said first preselected distance.

18. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers transferred to from said image forming apparatus to said finisher;

a plurality of trays capable of being selectively located at said paper outlet; and

control means for locating a designated one of said plurality of trays at said paper outlet beforehand during finish processing.

19. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers transferred to from said

image forming apparatus to said finisher;

a plurality of trays capable of being selectively located at said paper outlet and including at least two trays movable up and down independently of each other; and

control means for locating a designated one of said at least two trays at said paper outlet.

20. A finisher as claimed in claim 19, wherein if the designated tray to be moved to said paper outlet would be obstructed by the other movable tray, said control means starts retracting said other movable tray and then starts moving said designated tray toward said paper outlet.

21. A finisher as claimed in claim 20, wherein said control means moves said other movable tray to move at a higher speed than said designated tray while starting moving said other movable tray and said designated tray at the same time.

22. In a finisher including a plurality of trays for sequentially stacking papers driven out of an image forming apparatus and stapled or otherwise finished, at least one of said plurality of trays includes an end fence for positioning trailing edges of the papers and a stacking surface which are movable up and down in synchronism with each other, and another one of said plurality of trays has an end fence implemented by a wall of a body of said finisher.

23. A finisher as claimed in claim 22, wherein said plurality of trays are movable up and down along shared guide rails.

24. A finisher as claimed in claim 22, wherein said plurality

of trays are moved independently of each other.

25. A finisher as claimed in claim 22, wherein said another tray comprises a bottom tray movable up and down.

26. A finisher as claimed in claim 22, wherein when any one of said plurality of trays is selected in accordance with a mode selected on said image forming apparatus, the tray selected is located at a paper discharge position independently of the other trays.

27. In a finisher including a plurality of trays for sequentially stacking papers driven out of an image forming apparatus and stapled or otherwise finished, at least two drive sources are provided for moving said plurality of trays up and down.

28. A finisher as claimed in claim 27, wherein if a designated one of said plurality of trays capable of moving up and down independently of each other would be obstructed by the other movable tray when moving toward to a paper outlet, the designated tray is moved toward said paper outlet after the other movable tray has started retracting.

29. A finisher as claimed in claim 27, wherein said other movable tray moves at a higher speed than said designated tray while said other movable tray and said designated tray start moving at the same time.

30. A finisher as claimed in claim 27, wherein when any one of said plurality of trays is selected in accordance with a mode selected on said image forming apparatus, the tray sel cted is located at a paper discharge position independently of the other trays.

31. In a finisher including a plurality of trays for sequentially stacking papers driven out of an image forming apparatus and stapled or otherwise finished, at least one of said plurality of trays includes an end fence for positioning trailing edges of the papers and a stacking surface which are movable up and down in synchronism with each other, said plurality of trays are movable up and down along guide rails extending in an up-and-down direction, and said guide rails each include at least one bent portion for preventing any one of said trays moving along said bent portion from interfering with means for discharging the papers toward said tray.

32. In a finisher including a plurality of trays for sequentially stacking papers driven out of an image forming apparatus and stapled or otherwise finished, at least one of said plurality of trays includes an end fence for positioning trailing edges of the papers and a stacking surface which are movable up and down in synchronism with each other, said plurality of guide trays are supported by guide means engageable with guide rails extending in an up-and-down direction, and said guide rails each include at least one bent portion having a length L smaller than a pitch L1 at which said guide means are arranged on said tray having said end fence and said stacking surface.

33. In a finisher including a plurality of trays for sequentially stacking papers driven out of an image forming apparatus and stapled or otherwise finished, said plurality of trays each are driven by a respective drive means in an up-and-down direction, said

drive means being so positioned as not to interfere with other drive means.

34. A finisher for an image forming apparatus, comprising:

a plurality of trays movable up and down for stacking papers thereon;

drive means for causing any one of said plurality of trays to move up and down;

a pair of outlet rollers for discharging papers to any one of said plurality of trays;

a roller support member supporting one of said pair of outlet rollers for displacing the one outlet roller in accordance with a thickness of the papers being discharged;

switch means actuated by said roller support member when the thickness of the papers is greater than a preselected thickness; and

control means for causing, based on actuation of said switch means, said drive means to stop moving the tray.

35. A finisher as claimed in claim 34, wherein said roller support member includes a guide surface for guiding the papers being discharged.

36. A finisher as claimed in claim 34, wherein said preselected thickness is greater than a thickness that said finisher can discharge.

37. A finisher for an image forming apparatus, comprising:

a paper outlet for discharging papers;

a plurality of trays movabl up and down independently of each

other and including at least an upper tray retractable to a position above said paper outlet and a lower tray retractable to a position below said paper outlet when said upper tray is used;

control means for selectively locating said upper tray or said lower tray at said paper outlet;

lower limit position sensing means responsive to a lower limit position assigned to said lower tray and defined below said paper outlet for allowing said lower tray to be used as a mass discharge tray; and

stand-by position sensing means responsive to a stand-by position assigned to said lower tray as a home position and defined between said paper outlet and said lower limit position;

wherein said control means uses, when a number of papers stacked on said lower tray is great, said lower limit position as said retracted position or uses, when said number is small, said stand-by position as said retracted position.

38. A finisher as claimed in claim 37, wherein said stand-by position sensing means is so positioned as to sense a top of papers stacked on said lower tray, and wherein when said lower trays is located at said lower limit position and if said stand-by position sensing means does not sense the top of papers, said control means determines that a number of papers stacked on said lower tray is small.

39. A finisher as claimed in claim 37, wherein said stand-by position sensing means is so located as to sense a t p of pap rs stacked on said lower tray, and wherein wh n said lower trays is

located at said lower limit position and if said stand-by position sensing means does not sense the top of papers due to a removal of said papers, said control means determines that a number of papers stacked on said lower tray is small.

40. A finisher as claimed in claim 37, wherein said tray includes an end fence for positioning trailing edges of papers stacked thereon, and wherein relations of $H3 \geq H2$ and $H1 \geq H2 + H3$ hold where H2 is a height of said end fence, H1 is an overall height of said lower tray in a full state, and H3 is a distance which said lower tray moves downward from said stand-by position to said lower limit position.

41. A finisher as claimed in claim 40, wherein said stand-by position sensing means bifunctions as full sensing means for sensing the full state of said lower tray.